

audio empire

STEREO/BALANCED HIGH FIDELITY COMPONENTS

DYNA-EMPIRE, INC.

1075 STEWART AVENUE, GARDEN CITY, L. I., N. Y.
Pioneer 1-2700-CABLE: DYNAEMP GARDEN CITY, N. Y.

Your Empire Troubador record playback system is an outstanding example of the precision engineering design and workmanship to be found in modern stereophonic high fidelity components.

The Empire Troubador was designed to far exceed professional standards of performance. This instrument, in conjunction with other equally high calibre components, will allow you with the press of a button, to hear the full sound of music so akin to the actual performance that only the most expert ear can detect the difference.

Here at your fingertips you will find a lifetime of family pleasure truly beyond measure.

Your Troubador system is designed to produce sound - magnificent in person sound - from stereophonic and standard records.

Long life and trouble free operation are guaranteed by an ingenious turntable design that involves only two moving parts, a powerful hysteresis synchronous motor and a heavy aluminum turntable platter both individually dynamically balanced to the peak of perfection.

The handsome functional design of the Troubador system will enhance any room, blend with any decor and match the appearance of the other components in your system. (You can connect your Troubador system as easily as plugging in a lamp cord.)

We are happy to have you join the rapidly growing family of Audio Empire product users. We are sure you will enjoy many hours of listening pleasure.

Sincerely yours,
DYNA-EMPIRE, INC.



Herb Horowitz
Director,
Audio Empire

EMPIRE 298 TROUBADOR RECORD PLAYBACK SYSTEM

DO NOT ATTEMPT TO OPERATE THIS PRECISION INSTRUMENT UNTIL YOU HAVE READ THESE INSTRUCTIONS

A. UNPACKING THE EMPIRE 298

1. Open carton on side labeled "This Side Up."
2. Remove top cardboard support strut.
3. Remove arm shell box from front compartment.
4. Carefully lift turntable platter from assembly
5. Remove top cardboard cover over turntable assembly.
6. Remove Troubador unit from carton.
7. Carefully remove bottom cardboard cover, accessory box and motor cardboard supports.
8. Remove support tape from push button power control.
9. Before placing turntable platter back into center bearing well, put $\frac{1}{2}$ teaspoon of light oil (3 and 1 equivalent) in the well. This will insure proper lubrication and long life of your turntable assembly.
10. Gently lower the platter into turntable bearing well.

B. CONTENTS OF THE BOX ARE:

1. Empire 298 Troubador system (includes Empire 208 3 speed turntable, Empire 98 "Stereo/Balance" arm and matching walnut base.)
2. Accessory box contains:
 - a) Motor dress cover
 - b) Counterweight for arm
 - c) Drive belt
 - d) Screwdriver
 - e) Warranty card (This card must be returned within 10 days after purchase to validate the warranty.)
3. Arm shell (pre-wired)
(in separate front compartment)

C. INSTALLATION:

1. Mount cartridge in arm shell with mounting screws supplied by cartridge manufacturer and push pre-wired terminal clips of shell on the cartridge terminals as indicated in cartridge literature. Your arm has been pre-wired with the following color code:

White	)	Red	)
Black (ground))	Left Channel	Brown (ground))	Right Channel

2. Insert arm shell into arm connector bushing and lock into position by rotating knurled nut.
3. Mount arm counterweight on tailstock of the arm. The locking set screw in the counterweight is not centered. The set screw should be in a position towards the front of the arm.
4. Adjust the height of the arm by loosening the set screw at the base and slide bearing assembly up and down until arm tube is parallel to the surface of the record when the stylus is on the record. Tighten the set screw.

5. Set the calibrated stylus force knob on the arm to zero and adjust the counterweight til the arm balances. (With the arm height properly set as in Step 4 the arm will be in balance just as the stylus starts to lift from the record surface. Your arm is now balanced, properly adjusted and ready to operate. The knob is calibrated in grams. Each line indicates one gram. This calibration is more accurate than any commercially available gram scale.

You never need to readjust the counterweight unless you change cartridges.

6. Wrap the drive coupling belt around the turntable platter and then over the motor pulley. Be sure that there are no folds or twists in the belt. Spin the turntable platter by hand so that the belt adjusts itself to the proper position.

D. ADJUSTMENTS AND OPERATION:

1. With the belt on the uppermost (smallest diameter) step of the motor pulley, the turntable will run at 33-1/3 RPM. Plug the line cord into any convenient 117 VOLT, 60 CYCLE A.C. outlet. Press the red "Push Button Power Control" and the unit will start.

The neon light in the push button power switch has been designed for unobtrusive glow.

Now adjust the knurled nut on the front mounting screw of the motor until the belt rides exactly in the center of the pulley between the upper and lower flanges of that pulley. When this is accomplished, the turntable will be completely adjusted for the proper speed of rotation and minimum rumble, wow and flutter. It is not necessary to re-adjust when you switch to 45 or 78 RPM.

2. To change speeds, first turn off the power. Using the forefingers of both hands, place them between the turntable platter and the motor shaft, one on each side of the motor shaft, then using both thumbs, push the shaft towards the turntable platter and at the same time place the belt on the desired pulley. Then let go with the thumbs first and then the forefingers. Rotate the turntable platter until the belt seeks its proper level. Now turn on the power.
3. No other wiring is usually necessary on the Empire 208, but if you should find it desirable to ground the motor frame, a solder lug is attached to one of the motor posts for this purpose.
4. Place dress cover over motor shaft area and make sure the two fasteners fit into their mating holes.
5. When playing 45 RPM records, twist the center pop-up spindle in a clockwise manner, to replace, just push down and turn counterclockwise.

E. TECHNICAL SPECIFICATIONS (Troubadour System)

Empire 208 3 Speed Transcription Turntable

1. Speeds - 33-1/3, 45 and 78.25 RPM $\pm$ 0.3%
2. Rumble - Exceeds broadcast and laboratory requirements (Amplitude of rumble vibration is less than one millionth of an inch)
3. Turntable 12" Diam: 6 lbs cast aluminum individually balanced.
4. Turntable recovery: Less than 1 RPM @ 33-1/3 RPM
5. Wow & Flutter: Less than 0.15% rms
6. Power requirements: 105-125 V.A.C. 60 cycles only
7. Motor - Hysteresis Synchronous - 4 pole-Dynamically balanced

Empire 98 "Stereo/Balance" Arm

1. Maximum tracking error - ± 0.75
2. Arm resonance - 9.5 cycles
3. Calibrated stylus force adjustment - 0-8 grams
4. Counterweight zero balance adjustment for any cartridge from 2 -25 grams.

F. LIST OF REPLACEABLE PARTS:

<u>PART NUMBER</u>	<u>DESCRIPTION</u>
EMPIRE A124	Drive belt
EMPIRE A310	Line cord
EMPIRE A311	Motor capacitor
EMPIRE A312	Pilot light NE-51
EMPIRE A313	Pilot light socket & assembly
EMPIRE A134	Mat. Rubber safety suspension
EMPIRE A107	45 RPM spindle assembly
EMPIRE A172	05-600V Capacitor
EMPIRE 98RS	Removable arm shell

G. GENERAL INFORMATION:

It is always desirable to use as low a stylus force as possible when playing your records. Lower stylus force means much more record life. Various records require different minimum amounts of stylus force to keep the needle in the groove. This is dependent upon the amplitude (loudness), the transients (sharpness), the dynamic range (sudden changes in level) and frequencies (tone or pitch) of the sound recorded. Usually the more violent the sound, the more force required to track the record.

Different cartridges require different amounts of force to track the same record. A good rule of thumb to use in evaluating cartridges is that the lower the force required to track a particular disc the better the cartridge (higher compliance and lower moving mass).

Mistracking due to too low a stylus force is easily recognizable by the beebbling or distortion of the stylus rattling in the groove.

Maximum life of your record collection can be accomplished by following the simple process of determining the least amount of stylus force required to track a particular record completely through and marking this figure in grams (i.e. 2.5 grams) in pencil on the label of the disc. Adherence to this figure will give you maximum listening pleasure and economy of your system.

The Empire 98 "Stereo/Balance" arm in your Troubador system has a laboratory calibrated gram scale which allows you to instantly change stylus force settings to those desired.

NOTE: An accessory kit containing four shock mounts (SM/208) is available for \$2.50 audiophile net from your hi fi dealer for use in those installations where the proximity of turntable to speakers creates acoustic feedback conditions. Holes are pre-drilled at the bottom of your base to accept these accessory isolation mounts.

AUDIO-EMPIRE
Stereo/Balanced High Fidelity
Components
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